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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/671,784

09/29/2003

Ryoji Inoue

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EXAMINER

CULLER, JILL E

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,784

Applicant(s)

INOUE ET AL.

Examiner

Jill E. Culler

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-14 is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "61" has been used to designate both a pickup roller, see Figure 3 and page 13, line 9 and a valve sheet, see Figure 6 and page 21, line 12; reference character "62" has been used to designate both a frictional separating pad, see Figure 3 and page 13, line 12 and a valve spring, see Figure 6 and page 22, line 3; reference character "63" has been used to designate both a guide plate, see Figure 3 and page 13, line 21, and an ink supply port, see Figure 6 and page 20, line 4; reference character "64" has been used to designate both a delivery guide plate, see Figure 3 and page 13, line 24 and an atmosphere communication port, see Figure 6 and page 21, line 21; and reference character "65" has been used to designate an openable cover, see Figure 3 and page 14, line 9 and a joint rubber, see Figures 6, 7 and page 23, line 12.

The drawings are also objected to because, in Figure 10, it appears that rollers 7a and 7b have been labeled backward, as they are different in the other drawings, and in the description.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: The text is replete with grammatical errors. For example:

On page 3, line 4, it appears that "carries" should be "carried" instead.

On page 3, line 8, and repeatedly throughout the specification, the phrase "in the direction vertical to a paper surface" is not clear.

On page 7, line 13, it appears that "forth" should be "fourth".

On page 7, line 17, and page 8, line 5, "A" should not be capitalized.

On page 13, line 13, the word "being" appears to be unnecessary.

On page 29, line 17, the word "on" appears to be out of context.

On page 29, line 19, the word "not" appears to be missing after "should".

These and similar errors should be addressed throughout the specification.

Appropriate correction is required.

Claim Objections

3. Claims 6 and 9 are objected to because of the following informalities:

The language of claim 6 is awkward. The location of the phrase, "at the operating position" does not appear to be appropriate.

In claim 9, on line 2, "siad" should be "said" instead.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2, 8 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, it is unclear how at least part of said paper-conveying roller region is located both in the printing region plane and interposed between the printing region plane and part of the printing agent region, as a region cannot be both located inside an areas and also located between that area and another area. Claims 8 and 10, are equally unclear as they depend from claim 2 and include the indefinite language. Prior art has not been applied to these claims, as it cannot be determined exactly what structure applicant has intended to claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,534,902 to Hoesly.

With respect to claim 1, Hoesly teaches a printing apparatus, 10, comprising a printing agent container, 32, for storing printing agent; printing means, 12, for replenishing the printing agent from said printing agent container and imparting the printing agent to a printing medium, 16, from a plurality of printing elements; and a pair of paper-conveying rollers, 40, 42, for conveying the printing medium while maintaining the latter in a flat state by supporting the printing medium from front and rear surfaces thereof; wherein a printing region plane opposite to the printing medium, in which said plurality of printing elements of said printing means are arranged, at least part of a paper-conveying roller region occupied with said paper-conveying rollers and at least part of a printing medium region in which said printing agent container is located are arranged on a same straight line contained in said printing region plane. See column 4, lines 6-26 and Figure 1.

With respect to claims 4 and 5, Hoesly teaches the printing agent is liquid stored in said printing agent container while maintaining a liquid state and is located in said printing agent container at a lower level in the gravity direction as the printing on the

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printing medium is proceeding. See column 4, lines 6-18 and claim 1. It is noted that the level of any liquid will become lower in the gravity direction as the amount of liquid is diminished.

With respect to claim 6, Hoesly teaches the printing means has means capable of carrying out the printing operation on the printing medium during the horizontal motion at the operating position of said printing apparatus. See column 3, line 59 - 67.

With respect to claim 7, Hoesly teaches the printing agent is liquid ink and said printing element has an ejection orifice for ejecting ink and an element for generating energy used for ejecting the ink from said ejection orifice. See column 4, lines 6-18.

With respect to claim 9, Hoesly teaches the printing agent container is detachably mounted to the printing means, as they are two separate parts of the structure.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoesly in view of U.S. Patent No. 6,152,630 to Scarton et al.

Hoesly teaches all that is claimed, as in the above rejection of claims 1, 4-7 and 9, except that the printing agent region is positioned at a level higher than the printing means in the gravity direction at the operating position of the printing apparatus.

Scarton et al. teaches a printing apparatus which can be used in two positions, and in a vertical position, has a printing agent region positioned at a level higher than the printing means in a gravity direction. See column 3, lines 1-10 and Figure 6.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of Hoesly to operate in a vertical position, therefore having the printing agent region positioned at a level higher than the printing means, in order to be able to operate the printer in both horizontal and vertical positions, depending on the available space, as taught by Scarton et al.

Allowable Subject Matter

10. Claims 11-14 are allowed. The following is an examiner's statement of reasons for allowance:

With respect to claim 11, the prior art does not show or render obvious a printing apparatus as claimed, particularly including a printing material container, held by the means for holding the printing means, and extending over the conveying path to a position further downstream of a second conveying roller, which is downstream of the holding means, and closer to the conveying path than the farthest point from the conveying path of the second conveying roller. With respect to claim 13, the prior art does not show or render obvious a printing apparatus as claimed, particularly including

a printing material container held by the means for holding the printing means or recording means, and extending over the conveying path to a position further upstream of a first conveying roller, which is upstream of the holding means, and closer to the conveying path than the farthest point from the conveying path of the first conveying roller.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 6,628,430 to Silverbrook et al. and JP-08156243 to Hitachi each teach a printing apparatus having obvious similarities to the claimed subject matter.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571) 272-2159. The examiner can normally be reached on M-Th 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jec



Daniel J. Colilla
Primary Examiner
Art Unit 2854